

REMARKS

It is believed that this application has been amended in a manner that places it in condition for allowance at the time of the next Official Action.

Claims 23, 24, 26, 28-36, 38, 40 and 44-47 are pending in the present application. Claims 23, 35, and 44 have been amended to recite that the molecule containing selenium is selected from the group consisting of a selenium salt, selenocysteine, a selenocysteine-containing protein, selenomethionine, selenodiglutathione, selenomethyl, selenocysteine, dimethyl selenoxide, selenocystamine, and selenated yeasts. Support for amended claims 23, 35, and 44 may be found in the original claims and in the present specification at page 7, lines 7-12. Claims 45-47 have been added. Support for new claims 45-47 may be found in the present specification at page 7, lines 7-12 and lines 33-35.

In the outstanding Official Action, claims 23-24, 26, 30-32, 35-36, 38, 40, and 44 were rejected under 35 USC §102(b) as allegedly being anticipated by SOUTHAN et al. This rejection is respectfully traversed.

Applicants respectfully submit that SOUTHAN et al. fail to disclose or suggest the claimed invention. As noted above,

independent claims 23, 35, and 44 have been amended to recite specific selenium-containing molecules. SOUTHAN et al. fail to disclose or suggest the utilization of any of the recited selenium-containing molecules.

Indeed, SOUTHAN et al. disclose the use of a wide variety of compounds as nitric oxide synthase inhibitors. The general formulas for the inhibitor compounds are set forth in SOUTHAN et al. at page 6, lines 1-10. SOUTHAN et al. disclose two main families of inhibitor compounds. The first family of compounds are compounds that comprise a disulfide bridge. However, the disulfide bridge does not contain a selenium atom.

The second family of compounds disclosed by SOUTHAN et al. encompasses sub-families of compounds, depending on the meaning of the radical Y, wherein Y means a sulphur atom. The Examiner's attention is respectfully directed to the main formula set forth in SOUTHAN et al. at page 6, lines 1-5 that specifies that a mercapto-type compound is present. However, the compound does not contain a selenium atom. When radical Y is a selenium atom, the compound disclosed by SOUTHAN et al. may contain selenium but is structurally distinct from the selenium-containing molecules of the claimed invention.

Moreover, in all cases wherein a selenium atom is present, within an inhibitor compound disclosed by SOUTHAN et

al., the presence of a selenium atom within the inhibitor compound cannot be characterized as an important feature of the structure. Rather, SOUTHAN et al. teach that it is important that these inhibitor compounds have an amidino group. As a result, it cannot be said that SOUTHAN et al. disclose or suggest a selenium-containing compound as set forth in the claimed invention.

SOUTHAN et al. actually teach the use of nitric oxide synthase inhibitors, of several families of compounds having a common chemical structure, but that differ from each other by the presence or absence of a disulfide bridge and by the fact that these compounds are indifferently mercapto-type or seleno-type compounds.

Indeed, the Examiner's attention is directed to the SOUTHAN et al. publication, at page 5, lines 10-12; page 9, lines 20-22; page 10, lines 1-4; page 11, line 4; page 14, lines 3-9; page 16, lines 1-5; page 17, line 3; page 18, lines 1-7; and page 22, line 12, wherein the compounds are shown to be indifferently mercapto-type or seleno-type compounds.

The Examiner's attention is also directed to page 22, lines 11-19 of SOUTHAN et al., wherein the amounts of the mercapto-type or seleno-type inhibitor compounds are exclusively expressed as the total weight of the inhibitor compounds. From

this passage, one skilled in the art would conclude that the compounds disclosed by SOUTHAN et al. are biologically active within the same amounts, irrespective of whether said inhibitor compounds are of a mercapto-type or seleno-type.

When acknowledging that the presence of a selenium atom in the compounds disclosed by SOUTHAN et al. are purely optional, applicants believe that one of ordinary skill in the art would lack the motivation and a reasonable expectation of success of modifying the SOUTHAN et al. reference to obtain the claimed invention. As a result, applicants believe that SOUTHAN et al. cannot anticipate or render obvious the claimed invention.

In the outstanding Official Action, claims 23-24, 26, 28-36, 38, 40, and 44 were rejected under 35 USC §103(a) as allegedly being unpatentable over the combined teachings of SOUTHAN et al. and HOFBAUER et al. in view of Medline abstract 89114296. This rejection is respectfully traversed.

Applicants note that the Medline abstract 89114296 fails to qualify as prior art. The Medline abstract 89114296 publication is an abstract of the article "Selenium, systemic immune response syndrome, sepsis, an outcome in critically ill patients". However, the article was not available to the public until September 16, 1998. As evidence of this assertion, the Examiner's attention is respectfully directed to the attached

letter from Lisa Folden of Lippincott, Williams & Wilkins. The publisher confirms that the article was not available until September of 1998.

The Examiner's attention is also respectfully directed to the enclosed verified translation of French application No. 9810889, filed August 31, 1998. As the present application claims priority to this application and the article was not made available to the public until September of 1998, applicants believe that the article cannot qualify as prior art. As a result, applicants respectfully request that the rejection be withdrawn.

Moreover, applicants note that HOFBAUER et al. disclose the use of a selenite in an amount of 2500 µg over seven days for treating a patient suffering from severe pneumonia. HOFBAUER et al. disclose the use of a selenium-containing molecule in a daily amount of 357 µg, which is approximately 4.5 µg per kg. of body weight of a selenium-containing molecule daily dose. The amount of selenium which is administered to the patient is less than the commonly admitted toxic dose of 700 µg in patients undergoing a state of oxidized stress.

As a result, applicants believe that HOFBAUER et al. actually teach away from the claimed invention. Indeed, applicants believe that the proposed combination of SOUTHAN et

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al. and HOFBAUER et al. in view of Medline abstract 89114296 fails to render obvious the claimed invention.

Thus, in view of the above remarks, it is believed that this application is now in condition for allowance. Allowance and passage to issue on this basis are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- Verified English translation of French Application No. 9810889
- Letter from Lisa Folden of Lippincott Williams & Wilkins